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August 17, 2010
File: 106718.03

Mr. Tony Dublino
Mono County Community Development
74 North School Street
Bridgeport, California 93517

SUBJECT: **Potential Impacts of Mountain Meadows Mutual Water Company Well # 5 on Meadow Located West of Well Site Crowley Lake, Mono County, California APN 060-380-022**

REFERENCE: Water Resource Evaluation, Mountain Meadows Mutual Water Company Well # 5 Aquifer Testing and Analysis, Crowley Lake, Mono County, California, APN 060-380-022, by Kleinfelder, dated April 12, 2010.

Dear Mr. Dublino:

Per your request, Kleinfelder is pleased to present our professional opinion regarding the potential impact of pumping Mountain Meadows Mutual Water Company's Well # 5 (MMMWC Well #5) on shallow groundwater within the meadow located west of the well site.

The well was constructed on Assessors' Parcel Number 060-380-022 on a bluff adjacent to South Landing Road at an approximate elevation of 6,900 feet above mean sea level (msl). The meadow located west of the well site is at an approximate elevation of 6,860 feet msl, or approximately 40 feet lower in elevation than the well site.

MMMWC Well # 5 was constructed to a depth of 625 feet below ground surface (bgs) with 8-inch diameter blank casing from ground surface to a depth of 180 feet bgs, and perforated casing from depths of 180 to 625 feet bgs. Therefore, the shallowest depth that groundwater could enter the well casing is at a depth of 180

feet bgs. The well also has a cement sanitary seal from ground surface to a depth of 60 feet bgs to prevent shallow groundwater from entering the well.

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The geologic units encountered during drilling were gravel from ground surface to a depth of 15 feet bgs, clay with occasional gravel from 15 to 90 feet bgs, and volcanic rocks of the Bishop Tuff Formation from 90 to 625 feet bgs. First groundwater was encountered at a depth of 85 feet bgs (6,815 feet msl) and the measured static water level in the well after completion and development was 97 feet bgs (6,803 feet msl).

First groundwater in MMMWC Well #5 was encountered at an elevation of 6,815 feet msl or approximately 45 feet below the elevation of the meadow to the west of the well site. The static groundwater level was at an elevation of 6,803 feet msl or approximately 57 feet below the elevation of the meadow. Therefore, it appears that shallow groundwater and surface water in the meadow are a source of recharge to the regional groundwater system as the elevation of the meadow is higher than the elevation of the regional groundwater. Therefore, groundwater flow is from the meadow downward into the regional groundwater system. Thus, lowering the groundwater level due to pumping MMMWC Well #5 should not affect shallow groundwater levels or surface water flow in the meadow.

Additionally, first groundwater was encountered near the top of the volcanic rocks of the Bishop Tuff Formation and the static groundwater level is within the Bishop Tuff Formation. The meadow is most likely underlain by gravel and clay materials with the shallow groundwater flowing within the gravel materials. The clay layers encountered in the well from depths of 15 to 90 feet bgs provide separation between the shallow groundwater system underlying the meadow and the regional groundwater system within the Bishop Tuff.

Based on these data, it is our professional opinion that pumping MMMWC Well #5 should not affect shallow groundwater levels or surface water flow in the meadow and should not affect riparian vegetation within the meadow.

If you have any questions regarding this letter, please call either of the undersigned at (775) 689-7800.

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Sincerely,

KLEINFELDER WEST, INC.

Phil Tousignant
Staff Biologist

David J. Herzog, C.E.G.
Senior Engineering Geologist

cc: David Richman, MMMWC